Amendments to the Specification:

Please replace the paragraph beginning on page 1, line 14 with the following paragraph:

In addition, it is reported that 4-aminobenzopyran derivatives that have β3-receptor stimulating action and are supposed to be effective for the treatment of obesity ~~corpulence~~ (for example, WO 03/014113), but there has not been any mention as to the treatment of arrhythmia based on the prolongation effect on the refractory period this document.

Please replace the paragraph beginning on page 5, line 22 with the following paragraph:

- C_{2-9} hetecyclyl group (wherein the heterocyclyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C_{6-14} aryl group, C_{2-9} heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R^{18} wherein R^{18} has the same ~~above-mentioned~~ meaning as R^{10}), hydroxy group, nitro group, cyano group, formyl group, formamide group, amino group, C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{1-6} alkylcarbonylamino group, C_{1-6} alkylsulfonylamino group, aminocarbonyl group, C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{1-6} alkoxycarbonyl group; aminosulfonyl group, C_{1-6} alkylsulfonyl group, carboxy group or C_{6-14} arylcarbonyl group);

C_{1-6} alkylamino group, di-C_{1-6} alkylamino group, C_{1-6} alkylcarbonylamino group, C_{1-6} alkylsulfonylamino group, aminocarbonyl group, C_{1-6} alkylaminocarbonyl group, di-C_{1-6} alkylaminocarbonyl group, C_{1-6} alkylcarbonyl group, C_{1-6} alkoxycarbonyl group, aminosulfonyl group, C_{1-6} alkylsulfonyl group, carboxy group or C_{6-14} arylcarbonyl group), X is O, S, SO or SO_2;

Please replace the paragraph beginning on page 9, line 9 with the following paragraph:

(8) The benzopyran derivative or pharmaceutically acceptable salt thereof as set forth in (7), wherein R^6 is C_{6-14} aryl group wherein the aryl group may be arbitrarily substituted with 1 to 3 halogen atom or amino group, when and when a plurality of substituents are present, they may be identical or different from each other;

Please replace the paragraph beginning on page 9, line 19 with the following paragraph:

(12) The benzopyran derivative or pharmaceutically acceptable salt thereof as set forth in (5), wherein m is an integer of 1 to 3, n is 0, and R^6 is C_{2-4} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{3-8} cycloalkyl group, C_{3-8} cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen

group, C_{1-6} alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C_{1-6} alkylcarbonyl group, aminocarbonyl group, amino group, carboxy group or cyano group;

Please replace the paragraph beginning on page 19, line 17 with the following paragraph:

7-chloro-4-~~{~~{~~{~~[2-tetrahydropyran-4-yl)ethyl~~}~~]amino~~}~~}-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,

Please replace the paragraph bridging pages 23 and 24 with the following paragraph:

Examples of C_{3-8} cycloalkyl group are such as c-propyl, c-butyl, i-methyl-c-propyl, 2-methyl-c-propyl, c-pentyl, 1-methyl-c-butyl, 2-methyl-c-butyl, 3-methyl-c-butyl, 1,2-dimethyl-c-propyl, 2,3-dimethyl-c-propyl, 1-ethyl-c-propyl, 2-ethyl-c-propyl, c-hexyl, c-heptyl, c-octyl, 1-methyl-c-hexyl, 2-methyl-c-hexyl, 3-methyl-c-hexyl, ~~1,2-dimehtyl-c-hexyl~~ 1,2-dimethyl-c-hexyl, ~~2,3-dimethyl-c-propyl, 1-ethyl-c-propyl,~~ 1-methyl-c-pentyl, 2-methyl-c-pentyl, 3-methyl-c-pentyl, 1-ethyl-c-butyl, 2-ethyl-c-butyl, 3-ethyl-c-butyl, 1,2-dimethyl-c-butyl, 1,3-dimethyl-c-butyl, 2,2-dimethyl-c-butyl, 2,3-dimethyl-c-butyl, 2,4-dimethyl-c-butyl, 3,3-dimethyl-c-butyl, 1-n-propyl-c-propyl, 2-n-propyl-c-propyl, 1-i-propyl-c-propyl, 2-i-propyl-c-propyl, 1,2,2-trimethyl-c-propyl, 1,2,3-trimethyl-c-propyl, 2,2,3-trimethyl-c-propyl, 1-ethyl-2-methyl-c-propyl, 2-ethyl-1-methyl-c-propyl, 2-ethyl-2-methyl-c-propyl, 2-ethyl-3-methyl-c-propyl, and the like.

Please replace the paragraph beginning on page 24, line 8 with the following paragraph:

Examples of C_{3-8} cycloalkenyl group are such as 1-c-pentenyl, 2-c-pentenyl, 3-c-pentenyl, 1-methyl-2-c-pentenyl, 1-methyl-3-c-pentenyl, 2-methyl-1-c-pentenyl, 2-methyl-2-c-pentenyl, 2-methyl-3-c-pentenyl, 2-methyl-4-c-pentenyl, ~~2-methyl-5-c-pentenyl,~~ 2-methylene-c-pentyl, 3-methyl-1-c-pentenyl, 3-methyl-2-c-pentenyl, 3-methyl-3-c-pentenyl, 3-methyl-4-c-pentenyl, ~~3-methyl-5-c-pentenyl,~~ 3-methylene-c-pentyl, 1-c-hexenyl, 2-c-hexenyl, 3-c-hexenyl, ~~1-c-heptynyl, 2-c-heptynyl, 3-c-heptynyl, 4-c-heptynyl, 1-c-octynyl, 2-c-octynyl, 3-c-octynyl, 4-c-octynyl,~~, 2-c-heptenynyl, 3-c-heptenynyl, 4-c-heptenynyl, 1-c-octenynyl, 2-c-octenynyl, 3-c-octenynyl, 4-c-octenynyl, and the like.

Please replace the paragraph starting on page 29, line 1 with the following paragraph:

Examples of di-C_{1-6} alkylaminocarbonyl group are such as dimethylaminocarbonyl, diethylaminocarbonyl, di-n-propylaminocarbonyl, di-i-propylaminocarbonyl, di-c-propylaminocarbonyl, di-n-butylaminocarbonyl, di-i-butylaminocarbonyl, di-s-butylaminocarbonyl, di-t-butylaminocarbonyl, di-c-butylaminocarbonyl, di-1-pentylaminocarbonyl, di-2-pentylaminocarbonyl, di-3-pentylaminocarbonyl, di-i-pentylaminocarbonyl, di-neopentylaminocarbonyl, di-t-pentylaminocarbonyl, di-c-pentylaminocarbonyl, di-1-hexylaminocarbonyl, di-2-hexylaminocarbonyl, di-3-hexylaminocarbonyl, di-c-hexylaminocarbonyl, di-(1-methyl-n-pentyl)aminocarbonyl, di-(1,1,2-trimethyl-n-propyl)aminocarbonyl, di-(1,2,2-trimethyl-n-propyl)aminocarbonyl, di-(3,3-dimethyl-n-butyl)aminocarbonyl, methyl(ethyl)aminocarbonyl, methyl(n-propyl)aminocarbonyl, methyl(i-propyl)aminocarbonyl, methyl(c-propyl)aminocarbonyl, methyl(n-butyl)aminocarbonyl, methyl(i-butyl)aminocarbonyl,

methyl(s-butyl)aminocarbonyl, methyl(t-butyl)aminocarbonyl, methyl(c-butyl)aminocarbonyl, ethyl(n-propyl)aminocarbonyl, ethyl(i-propyl)aminocarbonyl, ethyl(c-propyl)aminocarbonyl, ethyl(n-butyl)aminocarbonyl, ethyl(i-butyl)aminocarbonyl, ethyl(s-butyl)aminocarbonyl, ethyl(t-butyl)aminocarbonyl, ethyl(c-butyl)aminocarbonyl, n-propyl(i-propyl)aminocarbonyl, n-propyl(c-propyl)aminocarbonyl, n-propyl(n-butyl)aminocarbonyl, n-propyl(i-butyl)aminocarbonyl, n-propyl(s-butyl)aminocarbonyl, n-propyl(t-butyl)aminocarbonyl, n-propyl(c-butyl)aminocarbonyl, ~~i-propyl(c-butyl)aminocarbonyl~~ i-propyl(c-propyl)aminocarbonyl, i-propyl(n-butyl)aminocarbonyl, i-propyl(i-butyl)aminocarbonyl, i-propyl(s-butyl)aminocarbonyl, i-propyl(t-butyl)aminocarbonyl, i-propyl(c-butyl)aminocarbonyl, c-propyl(n-butyl)aminocarbonyl, c-propyl(i-butyl)aminocarbonyl, c-propyl(s-butyl)aminocarbonyl, c-propyl(t-butyl)aminocarbonyl, c-propyl(c-butyl)aminocarbonyl, n-butyl(i-butyl)aminocarbonyl, n-butyl(s-butyl)aminocarbonyl, n-butyl(t-butyl)aminocarbonyl, n-butyl(c-butyl)aminocarbonyl, i-butyl(s-butyl)aminocarbonyl, i-butyl(t-butyl)aminocarbonyl, ~~i-butyl(t-butyl)aminocarbonyl,~~ i-butyl(c-butyl)aminocarbonyl, s-butyl(t-butyl)aminocarbonyl, s-butyl(c-butyl)aminocarbonyl, t-butyl(c-butyl)aminocarbonyl, and the like.

10/15/09

Please replace the paragraph beginning on page 30, line ~~8~~ 9 with the following paragraph:

Examples of C_{3-8} cycloalkylcarbonyl group are such as c-propylcarbonyl, c-butylcarbonyl, i-methyl-c-propylcarbonyl, 2-methyl-c-propylcarbonyl, c-pentylcarbonyl, 1-methyl-c-butylcarbonyl, 2-methyl-c-butylcarbonyl, 3-methyl-c-butylcarbonyl, 1,2-dimethyl-c-propylcarbonyl,

2,3-dimethyl-c-propylcarbonyl, 1-ethyl-c-propylcarbonyl, 2-ethyl-c-propylcarbonyl, c-hexylcarbonyl, c-heptylcarbonyl, c-octylcarbonyl, 1-methyl-c-hexylcarbonyl, 2-methyl-c-hexylcarbonyl, 3-methyl-c-hexylcarbonyl, ~~1,2-dimehtyl-c-hexylcarbonyl,~~ 1,2-dimethyl-c-hexylcarbonyl, 2,3-dimethyl-c-propylcarbonyl, 1-ethyl-c-propylcarbonyl, 1-methyl-c-pentylcarbonyl, 2-methyl-c-pentylcarbonyl, 3-methyl-c-pentylcarbonyl, 1-ethyl-c-butylcarbonyl,
2-ethyl-c-butylcarbonyl, 3-ethyl-c-butylcarbonyl, 1,2-dimethyl-c-butylcarbonyl,
1,3-dimethyl-c-butylcarbonyl, 2,2-dimethyl-c-butylcarbonyl,
2,3-dimethyl-c-butylcarbonyl, 2,4-dimethyl-c-butylcarbonyl,
3,3-dimethyl-c-butylcarbonyl, 1-n-propyl-c-propylcarbonyl, 2-n-propyl-c-propylcarbonyl, 1-i-propyl-c-propylcarbonyl, 2-i-propyl-c-propylcarbonyl,
1,2,2-trimethyl-c-propylcarbonyl, 1,2,3-trimethyl-c-propylcarbonyl,
2,2,3-trimethyl-c-propylcarbonyl, 1-ethyl-2-methyl-c-propylcarbonyl,
2-ethyl-1-methyl-c-propylcarbonyl, 2-ethyl-2-methyl-c-propylcarbonyl,
2-ethyl-3-methyl-c-propylcarbonyl, and the like.

Please replace the paragraph beginning on page 47, line 14 with the following paragraph:

(5) The benzopyran derivative or pharmaceutically acceptable salt thereof as set forth in (3), wherein R^6 is alkyl group, cycloalkyl group or ~~cycloalkynyl~~ cycloalkenyl ring;

10/15/09

Please replace the paragraph beginning on page 305, line 25 with the following paragraph:

The compound of formulae (1-a) or (2-a) that is the compound of formula (I) or (II) wherein A is the group of formula (5), R^4 is hydrogen atom and R^3 is hydroxy group can be

Please replace the paragraph beginning on page 316, line 8 with the following paragraph:

Brown amorphous product

^{1}H-NMR($CDCl_3$) δ; 1.51(s, 6H), 2.59(d, J = 0.6 Hz, 3H), 5.90(d, J = 9.9 Hz, 1H), ~~6.59(d, J = 9.9 Hz, 1H)~~ 6.59(d, J = 9.9 Hz, 1H), 7.11(d, J = 3.6 Hz, 1H), 7.25(s, 1H), 7.68(s, 1H), 8.57(d, J = 4.4 Hz, 1H)

MS(ESI$^+$)m/z; 226 $[M+1]^+$

Please replace the paragraph beginning on page 318, line 6 with the following paragraph:

(Yield: 59%)

Black brown oily product

^{1}H-NMR($CDCl_3$) δ: 1.49(s, 6H), 2.54(s, 3H), 2.62(s, 3H), 5.86(d, J = 9.9 Hz, 1H), ~~6.55(d, J = 9.9 Hz, 1H)~~ 6.55(d, J = 9.9 Hz, 1H), 7.00(s, 1H), 7.20(s, 1H), 7.60(s, 1H)

MS(ESI$^+$)m/z; 240$[M+1]^+$

Please replace the paragraph beginning on page 319, line 11 with the following paragraph:

(Yield: 50%)

^{1}H-NMR($CDCl_3$) δ; 1.50(s, 6H), 2.50(s, 3H), 2.66(s, 3H), 5.87(d, J = 9.9 Hz, 1H), ~~6.57(d, J = 9.9 Hz, 1H)~~ 6.57(d, J = 9.9 Hz, 1H), 7.26(s, 1H), 7.63(s, 1H), 8.48(s, 1H)

MS(ESI$^+$)m/z; 240 $[M+1]^+$

Please replace the paragraph beginning on page 326, line 8 with the following paragraph:

Pale yellow solid

mp: 65-67°C

^{1}H-NMR($CDCl_3$) δ; 1.86(s, 6H), 2.70(s, 1H), 7.69-7.71(2H), 7.80(s, 1H), 8.33(d, J = 8.3 Hz, 1H), 8.45(d, J = 8.3 Hz 1H), 9.01(br s, 1H)

~~MS(GC)m/z~~ MS(EI)m/z; 211 $[M]^+$

Please replace the paragraph beginning on page 326, line 20 with the following paragraph:

Green crystal

mp: 104-107°C

^{1}H-NMR($CDCl_3$) δ; 1.54(s, 6H), 5.89(d, J = 10.2 Hz, 1H), 6.93(d, J = 10.2 Hz, 1H), 7.50(d, J = 9.1 Hz, 1H), 7.73(br s, 1H), 8.31(d, J = 9.1 Hz, 1H), 8.74(d, J = 8.5 Hz, 1H), 9.03(br s, 1H)

~~MS(GC)m/z~~ MS(EI)m/z; 211$[M]^+$

Please replace the paragraph beginning on page 339, line 2 with the following paragraph:

(Yield: 78%)

~~97.1%~~ 99.1%ee; CHIRALCEL OJ-R acetonitril/methanol/0.01 M sodium chloride aqueous solution = 1/3/3, Retention time: 18.9 min.

Yellow amorphous product

^{1}H-NMR($CDCl_3$) δ; 1.28(s, 3H), 1.65(s, 3H), 2.59(d, J = 0.8 Hz, 3H), 3.60(d, J = 4.4 Hz, 1H), 4.13(d, J = 4.4 Hz, 1H), 7.19(s, 1H), 7.29(d, 1H), 8.02(s, 1H)

MS(ESI^+)m/z; 276 $[M+1]^+$

DM 10/15/09

Please replace the paragraph beginning on page 345, line 18 with the following paragraph:

Synthesis Example 26

~~(3R*,4S*)-4-{[2-(4-aminophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol~~ (3R*,4S*)-4-{[2-(4-aminophenyl)ethyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol

(Yield: 40%)

Colorless amorphous product

^{1}H-NMR ($CDCl_3$) δ: 1.23 (s, 3H), 1.55 (s, 3H), 1.58 (br s, 3H), 2.57 (s, 3H), 2.71 (t, J = 7.4 Hz, 2H), 2.85-3.05 (m, 2H), 3.11 (br s, 1H), 3.57 (d, J = 10.4 Hz, 1H), 3.84 (d, J = 10.4 Hz, 1H), 6.65 (d, J = 8.5 Hz, 2H), 7.01 (d, J = 8.5 Hz, 2H), 7.11 (s, 1H), 7.25 (s, 1H), 7.81 (s, 1H).

MS (ESI^+) m / z; 412 $[M+1]^+$

MS (ESI^-) m / z; 456 $[M+45]^+$

Please replace the paragraph bridging pages 346 and 347 with the following paragraph:

Synthesis Example 30

(3R*,4S*)-7-chloro-2,2,9-trimethyl-4-{[2-(1-piperidinyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol

(Yield: 61%)

Pale yellow amorphous product

^{1}H-NMR ($CDCl_3$) δ: 1.29 (s, 3H), 1.58 (s, 3H), 1.60 (br s, 2H), 1.50-1.70 (m, 6H), 2.30-2.60 (m, 6H), ~~2.58 (s, 3H), 3.06 (t, J = 5.8 Hz, 2H)~~ 2.58 (s, 3H), 3.06 (t, J = 5.8 Hz, 2H), 3.54 (d, J = 10.4 Hz, 1H), 3.80 (d, J = 10.4 Hz, 1H), 7.13 (s, 1H), 7.23 (s, 1H), 8.06 (s, 1H).

MS (ESI$^+$) m / z; 404 $[M+1]^+$

MS (ESI$^-$) m / z; 448 $[M+45]^+$

line 13

10/15/09

Please replace the paragraph bridging pages 348-349 with the following paragraph:

Synthesis Example 35

(*3R*,4S**)-7-chloro-2,2,9-trimethyl-4-[(2,2-diethoxyethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol ~~maleate~~ 1-maleate

(Yield: 88%)

White solid

^{1}H-NMR (CD_3OD) δ: 1.23-1.30 (m, 9H), 1.57 (s, 3H), 2.64 (s, 3H), 3.50-3.85 (m, 4H), 4.02 (d, J = 10.2 Hz, 1H), 6.27 (s, 1H), 7.37 (s, 1H), 7.49 (s, 1H), 8.13 (s, 1H)

Free form

(*3R*,4S**)-7-chloro-2,2,9-trimethyl-4-[(2,2-diethoxyethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol

Pale yellow amorphous product

MS (ESI$^+$) m / z; 410 $[M+1]^+$

MS (ESI$^-$) m / z; 453 $[M+45]^+$

Please replace the paragraph beginning on page 350 with the following paragraph:

Synthesis Example 40

~~(*3R*,4S**)-7-chloro-2,2,9-trimethyl-4-{[2-(2-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol~~(*3R*,4S**)-7-chloro-2,2,9-trimethyl-4-{[2-(2-pyridyl)ethyl]amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol

(Yield: 83%)

Yellow amorphous product

10/15/09

Please replace the paragraph bridging pages 358 and ~~259~~ 359 with the following paragraph:

Synthesis Example 55

~~(3R*,4S*)-7-chloro-2,2,9-trimethyl-4-[(2-tetrahydro-2H-thiopyran-4-ylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol~~ (3R*,4S*)-7-chloro-2,2,9-trimethyl-4-{[2-tetrahydro-2H-thiopyran-4-ylethyl]amino}-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol

(Yield: 63%)

Colorless amorphous product

^{1}H-NMR ($CDCl_3$) δ: 1.28 (s, 3H), 1.40-1.60 (m, 5H), 1.56 (s, 1H), 1.90-2.00 (m, 2H), 2.59 (s, 3H), 2.50-2.85 (m, 6H), 3.23 (s, 1H), 3.63 (d, J = 10.4 Hz, 1H), 3.87 (d, J = 10.4 Hz, 1H), 7.16 (s, 1H), 7.28 (s, 1H), 7.91 (s, 1H).

MS (ESI^+) m / z; 421 $[M+1]^+$

MS (ESI^-) m / z; 465 $[M+45]^+$

Please replace the paragraph beginning after page 361, line 1 with the following paragraph:

Under hydrogen stream at 1 atm, a solution of (3R*,4S*)-6-amino-3,4-dihydro-2,2-dimethyl-7-nitro-4-(2'-phenylethylamino)-2H-benzopyran-3-ol (10.0 g, 28.0 mmol) and 5% palladium carbon (AER type, 1 g) in ethanol (200 mL) was stirred at room temperature for 6 hours. Upon the completion of the reaction, the reaction solution was filtered through celite and concentrated to obtain the aimed product (yield: 98%).

Black amorphous product

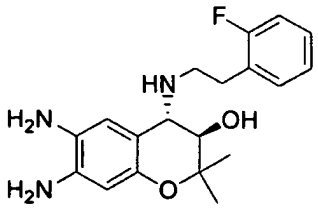
^{1}H-NMR ($CDCl_3$) δ: 1.13 (s, 3H), 1.43 (s, 3H), ~~2.60-3.0~~ 2.60-3.00 (m, 4H), 2.5-3.5 (br 6H), 3.47 (d, J = 9.6 Hz, 1H), 3.51 (d, J = 9.6 Hz, 1H), 6.12 (s, 1H), 6.14 (s, 1H), 7.15-7.50 (m, 5H)

MS (ESI) m / z; 400[M+1]$^+$, 327 (bp).

10/15/09

Please replace the paragraph beginning on page 362, line 22 with the following paragraph:

~~(3R*,4S*) 6,7-diamino-4-[{2-(2-fluorophenyl)ethyl}amino]-2,2-dimethyl-3,4-dihydro-2H-1-benzopyran-3-ol~~(3R*,4S*)-6,7-diamino-4-{[2-(2-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-1-benzopyran-3-ol



(Yield: 87%)

Black amorphous product

MS (ESI$^+$) m / z; 346 [M+1]$^+$

MS (ESI$^-$) m / z; 380 [M+45]$^+$

10/15/09

Please replace the paragraph beginning on page 364, line 21 with the following paragraph:

~~(8R*,9S*)-{[2-(4-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol hydrochloride~~(3R*,4S*)-{[2-(4-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol hydrochloride

(Yield: 95%)

Brown crystal

mp: 191-197°C (decomposition)

10/15/09

Please replace the paragraph beginning on page 365, line 17 with the following paragraph:

(3*R**,4*S**)-4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol

(Yield: 66%)

Two diastereomers that can not be ~~divided~~ separated

Gray amorphous product

^{1}H-NMR ($CDCl_3$) δ: 1.30 (s, 3H), 1.58 (s, 1.5H), 1.59 (s, 1.5H), 1.70 (br s, 3H), 2.90-3.10 (m, 2H), 3.71 (d, *J* = 10.5Hz, 1H), 3.95-4.05 (m, 1H),7.20-7.45 (m, 6H), 8.10 (s, 0.5H), 8.12 (s, 0.5H), 8.64 (d, *J* = 1.9 Hz, 1H), 8.73 (d, *J* = 1.9 Hz, 1H).

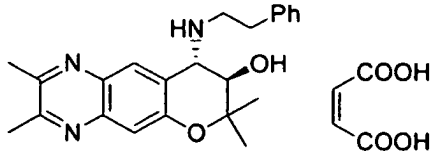
MS (ESI$^+$) m / z; 366 $[M+1]^+$

MS (ESI$^-$) m / z; 410 $[M+45]^+$

Please replace the paragraph beginning on page 367, line 5 with the following paragraph:

Synthesis Example 64

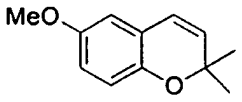
~~(3*R**4*S**) 2,2,7,8-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol maleate~~ (3*R**4*S**)-2,2,7,8-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol 1-maleate



Synthesis Example 64 was carried out similarly to the process of Synthesis Example 59.

Please replace the paragraph beginning after page 373, line 20 with the following paragraph:

6-methoxy-2,2-dimethyl-2H-1-benzopyran



A solution of ~~4-(1,1-dimethyl-2-propenyloxy)anisole~~ 4-(1,1-dimethyl-2-propynyloxy)anisole in 1,2-dichlorobenzene (50 mL) was stirred at 190°C for 2 hours. Upon the completion of the reaction, the solvent was distilled off under a reduced pressure. The residue was purified by column chromatography (hexane/chloroform = 3/1) and the aimed product was obtained as red oily substance (2-step, yield: 61%).

^{1}H-NMR ($CDCl_3$) δ: 1.41 (s, 6H), 3.75 (s, 3H), 5.64 (d, *J*=9.9 Hz, 1H), 6.28 (d, *J*=9.9 Hz, 1H), 6.55 (d, *J*=2.7 Hz, 1H), 6.64-6.73 (m, 2H)

LC/MS (ESI^+)m/z: 191[M^++1]

Please replace the paragraph beginning after page 374, line 2 with the following paragraph:

A mixed solution of acetic acid (6.2 mL) and acetic anhydride (6.2 mL) containing 6-methoxy-2,2-dimethyl-2H-1-benzopyran (3.1 g, 16.4 mmol) was cooled with ice, nitric acid (1.37 mL, 18.0 mmol) was added dropwise and then the mixture was stirred at 0°C for 1 hour. Upon the completion of the reaction, an aqueous solution of 1 mol/L sodium hydroxide was added to the reaction solution, the resulting solution was extracted with ethyl acetate (150 mL). The organic phase was washed twice with 1 mol/L sodium hydroxide aqueous solution and once with saturated sodium chloride solution. Then, the organic phase was dried over anhydrous magnesium sulfate. After distilling off the solvent, the residue was purified by

column chromatography (hexane/ethyl acetate = 6/1) and the aimed product was obtained as yellow crystal (yield: 79%).

^{1}H-NMR ($CDCl_3$) δ: 1.44 (s, 6H), 3.91 (s, 3H), 5.85 (d, *J*=9.6 Hz, 1H), 6.33 (d, *J*=9.6 Hz, 1H), 6.69 (s, 1H), 7.34 (s, 1H)

~~LC/MS (ESI$^+$): 236 [M$^+$+1]~~ LC/MS (ESI$^+$)m/z: 236 [M$^+$+1]

Please replace the paragraph bridging pages 374 and 375 with the following paragraph:

^{1}H-NMR ($CDCl_3$) δ: 1.26 (s, 3H), 1.58 (s, 3H), 3.53 (d, *J*=4.3 Hz, 1H), 3.90 (d, *J*=4.3 Hz, 1H), 3.95 (s, 3H), 7.08 (s, 1H), 7.33 (s, 1H)

~~MS (EI): 251 [M$^+$]~~ MS (EI)m/z: 251 [M$^+$]

HPLC: 18.6 min (enantiomer 24.1 min)

HPLC condition: chiralcel OJ-RH, MeCN/MeOH/0.01 M NaCl aq. = 1/3/5, 1.0 ml/min, 40°C, 256 nm

DM 10/15/09

Please replace the paragraph beginning on page 375, line 7 with the following paragraph:

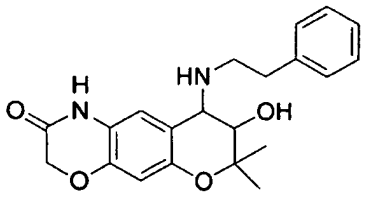
To a solution of (*3R**, *4S**)-3,4-epoxy-6-methoxy-2, 2-dimethyl-7-nitro-3,4-dihydro-2H-1-benzopyran (2.50 g, 9.95 mmol) in 1,4-dioxane (5.0 mL), lithium perchlorate (1.06 g, 9.95 mmol) and 4-(phenylethyl)amine (1.50 mL, 11.9 mmol) were added at room temperature and the mixture was stirred at 80 °C for 1 hour. Upon the completion of the reaction, an aqueous solution of saturated ammonium chloride was added to the reaction solution, and the resulting solution was extracted with ethyl acetate. The organic phase was washed with saturated sodium chloride solution, and then dried over anhydrous sodium sulfate. After distilling off the solvent, the residue was purified by column chromatography (hexane/ethyl

and the resulting mixture was stirred at room temperature for 10 minutes. Upon the completion of the reaction, the resulting crystal was filtered off and the aimed product was obtained (yield: 93%).

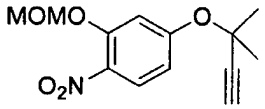
Please replace the paragraph beginning on page 382, line 7 with the following paragraph:

Synthesis Example 74

7-Hydroxy-6,6-dimethyl-8-(2-phenylethylamino)-7,8-dihydro-1H,6H-4,5-dioxa-1-aza-anthracene-2-one



~~2-methoxymethoxy-4-(1,1-dimethyl-2-propionyloxy)-1-nitro-benzene~~2-methoxymethoxy-4-(1,1-dimethyl-2-propynyloxy)-1-nitro-benzene



Please replace the paragraph beginning on page 383, line 3 with the following paragraph:

A solution of ~~2-methoxymethoxy-4-(1,1-dimethyl-2-propionyloxy)-1-nitro-benzene~~ 2-methoxymethoxy-4-(1,1-dimethyl-2-propynyloxy)-1-nitro-benzene (2.1 g, 7.92 mmol) in ~~dichlorobenzene~~ 1,2-dichlorobenzene (21 mL) was stirred at 20°C for 0.5 hour. Upon the completion of the reaction, the resulting mixture was concentrated and purified by silica gel column (hexane/ethyl acetate = 5/1). Thereby, a mixture (1:1) of the aimed product and the

^{1}H-NMR ($CDCl_3$) δ: 1.17 (s, 3H), 1.45 (s, 3H), 2.75-3.00 (m, 4H), 3.43 (d, J = 9.9 Hz, 1H), 3.50 (s, 3H), 3.59 (d, J = 9.9 Hz, 1H), 4.20 (s, 2H), 5.19 (s, 2H), 6.61 (s, 1H), 7.15-7.30 (m, 5H), 8.14 (s, 1H), 8.73 (s, 1H).

MS (ESI^+) m / z: 449 $[M+1]^+$

MS (ESI^-) m / z: 447 $[M-1]^+$

10/15/09

Please replace the paragraph beginning on page 386, line 12 with the following paragraph:

~~2-Chloro-N-[(±)-trans-3,7-dihydroxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-1-benzopyran-6-yl]-acetamide~~ 2-chloro-N-{(±)-trans-3,7-dihydroxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-1-benzopyran-6-yl}-acetamide

10/15/09

Please replace the paragraph beginning on page 386, line 16 with the following paragraph:

To a solution of ~~2-chloro-N-[(±)-trans-3-hydroxy-7-methoxymethoxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-1-benzopyran-6-yl]-acetamide~~ 2-chloro-N-{(±)-trans-3-hydroxy-7-methoxymethoxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-1-benzopyran-6-yl}-acetamide (228 mg, 0.51 mmol) in methylene chloride (6 mL), boron tribromide (1 M solution in methylene chloride, 2.42 mL, 2.42 mmol) was added at 0°C, and the resulting mixture was stirred for 2 hours. Upon the completion of the reaction, methanol and saturated sodium hydrogencarbonate aqueous solution were added thereto, and the resulting solution was extracted with ethyl acetate, washed with saturated sodium hydrogencarbonate aqueous solution and then with saturated sodium chloride solution, dried over magnesium sulfate and concentrated to obtain the aimed product (yield: 100%).

Colorless amorphous product

10/15/09

Please replace the paragraph beginning on page 391, line 15 with the following paragraph:

This compound was synthesized according to the process of Synthesis Example 19. (Yield: 30%)

Orange amorphous product

^{1}H-NMR ($CDCl_3$) δ: 1.19 (s, 3H), 1.50 (s, 3H), 2.05-2.15 (br, 2H), 2.49 (s, 3H), 3.09-3.32 (m, 10H), 4.60-5.20 (br, 2H), 7.06 (s, 1H), 7.11 (s, 1H), 7.88 (s, 1H)

MS ~~(EI$^+$)~~ (ESI$^+$) m / z; 390$[M+1]^+$

Please replace the paragraph bridging pages 393 and 394 with the following paragraph:

To a solution of (*3R*,4R**)-3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carbonitrile described in Synthesis Example 14 (465 mg, 1.20 mmol) in ethanol (5 mL), sodium hydroxide aqueous solution (3 mol/L, 5 mL) was added at room temperature, and the resulting mixture was stirred for 2 hours with reflux under heating. After cooling to room temperature, the resulting solution was neutralized with 1 mol/L hydrochloric acid, precipitated brown solid was filtered off and the aimed product was obtained (yield: 90%).

Brown solid

^{1}H-NMR ($CDCl_3$) δ: 1.07 (s, 3H), 1.41 (s, 3H), 2.46 (s, 3H), 2.89-3.08 (br, 2H), 3.10-3.28 (br, 2H), 4.03-4.22 (br, 1H), 4.30-4.44 (br, 1H), 7.01-7.54 (m, 7H), 7.86 (s, 1H), 8.51-8.73(br, 1H)

MS ~~(EI$^+$)~~ (ESI$^+$) m / z; 407 $[M+1]^+$

10/15/09

Please replace the paragraph beginning after page 404, line 4 with the following paragraph:

~~(3R*,4S*)-7-chloro-2,2,9-trimethyl-6λ5-oxy-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol hydrochloride~~ (3R*,4S*)-7-Chloro-2,2,9-trimethyl-6λ5-oxy-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol hydrochloride

(yield: 60%).

Pale yellow crystal

mp;226-230°C (decomposition)

^{1}H-NMR(DMSO-d_6) δ; 0.86(t, J = 6.3 Hz, 3H), 1.16(s, 3H), 1.27-1.29(m, 4H), 1.50(s, 3H), 1.60-1.72(m, 2H), 2.54(s, 3H), 2.86(brs, 1H), 3.07(brs, 1H), 4.07-4.10(m, 1H), 4.71(d, *J* = 8.5Hz, 1H), 6.51(d, *J* = 4.7 Hz, 1H), 7.47(s, 1H), 7.67(s, 1H), 9.04(s, 1H), 9.19(brs, 1H), 9.74(brs, 1H)

MS(ESI$^+$)m/z; 379, 381 $[M+1]^+$

MS(ESI$^-$)m/z; 423, 425 $[M+45]^+$

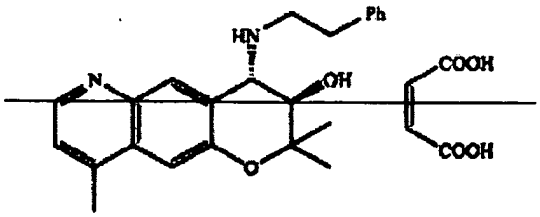
Please replace the paragraph beginning on page 405, line 1 with the following paragraph:

To a solution of t-butyl (2-phenylethyl) (*3R**,4S**)-7-amino-3-hydroxy-6-methoxy-2,2-dimethyl-3,4-dihydro-2*H*-1-benzopyran-4-yl carbamate described in Synthesis Example 71 (1.04 g, 2.35 mmol) in pyridine (1.90 mL, 23.5 mmol), chloromethanesulfonylchloride (0.31 mL, 3.52 mmol) was added, and the resulting mixture was stirred at room temperature for 10 hours. Upon the completion of the reaction, 1 mol/L hydrochloric acid aqueous solution (ca. 30 mL) was added thereto to adjust pH to about 7, and then the resulting solution was extracted with ethyl acetate, washed with saturated sodium chloride aqueous solution, and dried over anhydrous sodium sulfate and concentrated. The resulting mixture was purified by

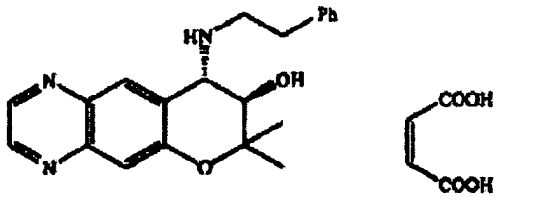
Amendments to the Specification:

Please replace specification page 360, lines 24-26, with the following, amended lines:

~~(3R*,4S*) 2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol 1 maleate~~



(3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol 1 maleate



Please replace specification page 361, lines 15-16, with the following, amended lines:

~~(3R*,4S*) 2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~ (3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol

Please replace specification page 362, lines 4-5, with the following, amended lines:

~~(3R*,4S*) 2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol 1 maleate~~ (3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol 1 maleate

Amendments to the Specification:

10/15/09

Please replace the paragraph beginning on page 349, line ~~6~~ 5 of the specification with the following, amended paragraph:

~~(3R*,4S*)-7-chloro-2,2,9-trimethyl-4-[2-(1-pyrazolylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol~~

(3R*,4S*)-4-[2-(1H-pyrazol-1-yl)ethylamino]-7-chloro-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol

10/15/09

Please replace the paragraph beginning on page 360, line ~~24~~ 23 with the following, amended paragraph:

~~(3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol 1 maleate~~

(8R*,9S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol 1 maleate

10/15/09

Please replace the paragraph beginning on page 361, line ~~15~~ 14 with the following, amended paragraph:

~~(3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol~~

(8R*,9S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol

10/15/09 DM

Please replace the paragraph beginning on page 362, line 3 with the following, amended paragraph:

~~(3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol 1 maleate~~

(*8R*,9S**)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol 1 maleate

10/15/09 DM

Please replace the paragraph beginning on page 362, line 6 with the following, amended pargraph:

~~(3R*,4S*)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7H-pyrano[2,3-g]quinoxalin-8-ol~~

(*8R*,9S**)-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol (1.18 g, 3.38 mmol) in ethyl acetate (22 mL), maleic acid (471 mg, 4.06 mmol) was added at room temperature, and the resulting mixture was stirred for 10 minutes. Upon the completion of the reaction, solid product was filtered off, washed with ethyl acetate and dried to obtain the aimed product (yield: 61%).

Pale gray crystal

DM 10/15/09

Please replace the paragraph beginning on page 362, line 17 with the following, amended paragraph:

~~(*3R*,4S**)-4-{[2-(2-fluorophenyl)ethyl]amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(*8R*,9S**)-9-{[2-(2-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

Please replace the paragraph beginning on page 363, line 5 with the following, amended paragraph:

~~(3R*,4S*) 4-{[2-(2-fluorophenyl)ethyl]amino} 2,2-dimethyl 3,4-dihydro 2H pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-9-{[2-(2-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-3-ol

Please replace the paragraph beginning on page 363, line 15 with the following, amended paragraph:

~~(3R*,4S*) 4-{[2-(2-fluorophenyl)ethyl]amino} 2,2-dimethyl 3,4-dihydro 2H pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(8R*,9S*)-9-{[2-(2-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-3-ol hydrochloride

Please replace the paragraph beginning on page 363, line 24 with the following, amended paragraph:

~~(3R*,4S*) 9-{[2-(4-fluorophenyl)ethyl]amino} 7,7-dimethyl 8,9-dihydro 7H pyrano[2,3-g]quinoxalin-8-ol hydrochloride~~

(8R*,9S*)-9-{[2-(4-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

10/18/09

Please replace the paragraph beginning on page 364, line 10 with the following, amended paragraph:

~~(3R*,4S*) 9-{[2-(4-fluorophenyl)ethyl]amino} 7,7-dimethyl 8,9-dihydro 7H pyrano[2,3-g]quinoxalin-8-ol~~

(8R*,9S*)-9-{[2-(4-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

10/18/09

Please replace the paragraph beginning on page 364, line 19 with the following, amended paragraph:

~~(8R*,9S*) 9-{[2-(4-fluorophenyl)ethyl]amino} 7,7-dimethyl 8,9-dihydro 7H pyr ano[2,3-g]quinoxalin-8-ol hydrochloride~~

(8R*,9S*)-9-{[2-(4-fluorophenyl)ethyl]amino}-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

Please replace the paragraph beginning on page 365, line 2 with the following, amended paragraph:

~~(3R*,4S*) 4-[(2-hydroxy-2-phenylethyl)amino] 2,2-dimethyl 3,4-dihydro 2*H* pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-9-[(2-hydroxy-2-phenylethyl)amino]-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 365, line 16 with the following, amended paragraph:

~~(3R*,4S*) 4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-9-[(2-hydroxy-2-phenylethyl)amino]-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 366, line 2 with the following, amended paragraph:

~~(3R*,4S*) 2,2-dimethyl-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(8R*,9S*)-7,7-dimethyl-9-(pentylamino)-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

Please replace the paragraph beginning on page 366, line 14 with the following, amended line:

~~(3R*,4S*) 2,2-dimethyl-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-7,7-dimethyl-9-(pentylamino)-8,9-dihydro-2*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 366, line 22 with the following, amended paragraph:

~~(3R*,4S*) 2,2-dimethyl-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(8R*,9S*)-7,7-dimethyl-9-(pentylamino)-8,9-dihydro-2*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

10/16/04

Please replace the paragraph beginning on page 367, line ~~8~~ 7 with the following, amended paragraph:

~~(3R*4S*) 2,2,7,8-tetramethyl 4-[(2-phenylethyl)amino] 3,4-dihydro 2H-pyrano[2,3-g]quinoxalin-3-ol maleate~~

(8R*,9S*)-2,3,7,7-tetramethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol maleate

10/15/04

Please replace the paragraph beginning on page 367, line ~~4~~ 12 with the following, amended paragraph:

~~3R*4S*) 2,2,7,8-tetramethyl 4-[(2-phenylethyl)amino] 3,4-dihydro 2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-2,3,7,7-tetramethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

10/15/04

Please replace the paragraph beginning on page 367, line ~~6~~ 23 with the following, amended paragraph:

~~(3R*,4S*) 7,8-diethyl 2,2-dimethyl 4-[(2-phenylethyl)amino] 3,4-dihydro 2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-2,3-diethyl-7,7-dimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 368, line 12 with the following, amended paragraph:

~~(3R*,4S*)-2,2,8-trimethyl-7-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-3,7,7-trimethyl-9-[(2-phenylethyl)amino]-2-phenyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 368, line 25 with the following, amended paragraph:

~~(3R*,4S*)-2,2,7-trimethyl-8-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-2,7,7-trimethyl-9-[(2-phenylethyl)amino]-3-phenyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 369, line 11 with the following, amended paragraph:

~~(3R*,4S*)-2,2,8-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol 1 maleate~~

(8R*,9S*)-3,7,7-trimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol 1 maleate

Please replace the paragraph beginning on page 369, line 15 with the following, amended paragraph:

~~(3R*,4S*)-2,2,8-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-3,7,7-trimethyl-9-[(2-phenylethyl)amino]-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 370, line 4 with the following, amended paragraph:

~~(3R*,4S*)-4-[(2-cyclohexylethyl)amino)]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(8R*,9S*)-9-[(2-cyclohexylethyl)amino)]-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

Please replace the paragraph beginning on page 370, line 7 with the following, amended paragraph:

~~(3R*,4S*)-4-amino-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-9-amino-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 370, line 24 with the following, amended paragraph:

~~(3R*,4S*)-4-[(2-cyclohexylethyl)amino)]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol~~

(8R*,9S*)-9-[(2-cyclohexylethyl)amino)]-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol

Please replace the paragraph beginning on page 371, line 3 with the following, amended paragraph:

~~(4*R**,4*S**) 4-amino-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol~~

(8*R**,9*S**)-9-amino-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol (100 mg, 0.408 mmol) in methanol (2 mL), cyclohexylmethyl aldehyde (103 mg, 0.816 mmol) was added, and the resulting mixture was stirred at room temperature for 20 minutes. Sodium cyanoborohydride (51 mg, 0.816 mmol) was added thereto, and the resulting mixture was stirred at room temperature for 1 hour. Upon the completion of the reaction, saturated sodium hydrogencarbonate aqueous solution was added thereto, the resulting solution was extracted with ethyl acetate, washed with saturated sodium chloride solution, and dried over magnesium sulfate and concentrated. The resulting mixture was purified by silica gel column (hexane/ethyl acetate = 2/1) to obtain the aimed product (yield: 48%).

Please replace the paragraph beginning on page 371, line 19 with the following, amended paragraph:

~~(3R*,4S*) 4-[(2-cyclohexylethyl)amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol hydrochloride~~

(8*R**,9*S**)-9-[(2-cyclohexylethyl)amino]-7,7-dimethyl-8,9-dihydro-7*H*-pyrano[2,3-g]quinoxalin-8-ol hydrochloride

Please replace the paragraph beginning on page 371, line ~~28~~ 26 with the following, amended paragraph:

~~(±) *trans* 3 hydroxy 2,2 dimethyl 4 [(2 phenylethyl)amino] 2,3,4,6 tetrahydro pyrano[2,3 f]benzimidazol 7one~~

(±)-*trans*-7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-3,6,7,8-tetrahydrochromeno[7,6-d]imidazol-2(*1H*)-one